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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/756,642	01/03/2001	Paul J. Rank	0007056-0055	7532
26263	7590	03/17/2005	EXAMINER	
SONNENSCHEIN NATH & ROSENTHAL LLP			HILLERY, NATHAN	
P.O. BOX 061080			ART UNIT	PAPER NUMBER
WACKER DRIVE STATION, SEARS TOWER				
CHICAGO, IL 60606-1080			2176	

DATE MAILED: 03/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/756,642	RANK ET AL.	
	Examiner	Art Unit	
	Nathan Hillary	2176	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 28 February 2005.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-44 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-44 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 09 March 2001 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date _____.
 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date _____.
 5) Notice of Informal Patent Application (PTO-152)
 6) Other: _____.

DETAILED ACTION

1. This action is responsive to communications: RCE filed on 2/28/05.
2. Claims 1 – 44 are pending in the case. Claims 1, 12, 23 and 34 are independent.

Continued Examination Under 37 CFR 1.114

3. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/31/05 has been entered.

Drawings

4. The drawings are objected to under 37 CFR 1.83(a) because they fail to show Figure 10 as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for

consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claims 1 – 33 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 1 – 11 can reflect a series of mental/manual steps. The claimed invention simply manipulates abstract ideas without practical application in the technological arts. Claims 12 – 33 are software per se and are not tangibly embodied to a computer system. The rejection to claims 12 – 33 may be overcome if an inference to some form of hardware is claimed. Consequently, the claimed invention does not require the technical or useful arts and, thus, fails to define patentable subject matter.

7. Further, to expedite a complete examination of the instant application the claims rejected under 35 U.S.C. 101 (nonstatutory) above are further rejected as set forth below in anticipation of applicant amending these claims to place them within the four statutory categories of invention.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1 – 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Young et al. (US005280575A).

10. ***Regarding independent claim 1***, Young et al. teach that *FIGS. 1 through 5D depict, at various level of detail, a tabular data structure in accordance with the invention. With reference to FIG. 1, a tabular data structure 10 includes three primary portions, including a descriptor portion 11, a header portion 12 and a table contents portion 13. As will be described in greater detail below in connection with FIGS. 5A through 5C, the table contents portion 13 contains, in one or more data structures each representing a table, data representing a table, which comprises an array of cells. Tabular data may be generated by, for example, a spreadsheet program in which data organized in the form of an array of, generally, two or more dimensions. The data stored in cells in a table may comprise literal data, that is, data representing input by an operator or other source, or it may comprise data representing a formula which defines a cell value in terms of an arithmetic expression with reference to other cells in the table. Alternatively, as described below, data for a cell may be represented or provided by a source external to the tabular data structure 10 (Column 1, line 66 – Column 2, line 18), which provide for storing on a first record (portion) property data (descriptor*

portion) of said spreadsheet file; storing on a second record (portion) access data (header portion) of said spreadsheet file; storing on a third record (portion) spreadsheet cell data (table contents portion) for a plurality of spreadsheet cells.

Young et al. do not explicitly teach **a first record, a second record, or a third record**.

However, it would have been obvious to one of ordinary skill in the art at the time of invention to be motivated to use and/or modify Young et al. to provide for **a first, second and third record**, since Young et al. already disclose that *a tabular data structure 10 includes three primary portions, including a descriptor portion (property data) 11, a header portion (access data) 12 and a table contents portion (spreadsheet cell data) 13*.

In further support, Microsoft Press Computer Dictionary 3rd edition defines **record** as *a data structure that is a collection of fields (elements), each with its own name and type*.

11. **Regarding dependent claim 2**, Young et al. teach that *in a refinement, each row in the data structure includes a row header including, implicitly or explicitly, a row number and at least zero or more cells, the row number identifying a row in a table for the cell* (Column 1, lines 39 – 43), which provide that **said property data includes the number of rows and cells in said spreadsheet file**.

12. **Regarding dependent claims 3 and 4**, Young et al. teach that *the descriptor portion 11 includes a plurality of fields, including a format version identification field 14 that identifies a format version for the tabular data structure 10* (Column 2, lines 19 – 22) and that *in addition, the header portion 12 includes a title field 21 which contains a title for the tabular data structure 10 and a data field 22 which contains a date identifying*

*when the tabular data structure was created or last modified or updated (Column 2, lines 43 – 48), which provide that **said property data includes the name and version of the spreadsheet file** and **said property data includes date information of said spreadsheet file.***

13. **Regarding dependent claim 5**, Young et al. teach that *the table metadata field 64 may also contain a default formats field 74 which contains default formats for the rows and columns comprising the table defined by table definition 59* (Column 6, lines 40 – 43), which provide that **said property data includes default data formatting information.**

14. **Regarding dependent claim 6**, Young et al. teach that *the table header portion 60 may include fields 61 and 62 which may contain values identifying, respectively, the maximum number of columns and rows which the table may contain* (Column 5, line 67 – Column 6, line 3), which provide that **said access data includes the number of columns of said spreadsheet file accessed by said second record.**

15. **Regarding dependent claim 7**, Young et al. teach that *as a further refinement, each cell includes a header portion and a value portion, the header portion containing a cell number identifying a column in a table for the cell* (Column 1, lines 43 – 46), which provide that **said access data includes cell IDs of cells in said columns accessed by said second record.**

16. **Regarding dependent claim 8**, Young et al. teach that *the table contents portion 13 includes one or more table definitions each of which may, in turn, include a metadata portion, which, in turn, includes column entries each of which contains*

information regarding processing and display of a specific column of data in the table (Column 3, lines 43 – 48), which provide that ***a plurality of records storing access data, wherein each of said plurality of records storing access data accesses a subset of columns of said spreadsheet file.***

17. ***Regarding dependent claim 9***, Young et al. do not explicitly teach that ***said cell data includes the number of cells stored in said third record.*** However, Young et al. do teach that *the table contents portion 13 contains, in one or more data structures each representing a table, data representing a table, which comprises an array of cells* (Column 2, lines 4 – 7). It would have been obvious to one of ordinary skill in the art at the time of the invention to be motivated to store the number of cells because the invention of Young et al. uses an array to hold the cells and the skilled artisan would want to keep track of the number of elements in an array for memory conservation.

18. ***Regarding dependent claim 10***, Young et al. teach that *a cell 91 includes ... a cell value/expression field 97, which contains the literal value for the cell, and/or an expression by which the value for the cell can be computed* (Column 8, lines 15 – 20), which provide that ***said cell data includes the data values stored in cells stored in said third record.***

19. ***Regarding dependent claim 11***, Young et al. teach that *the table contents portion 13 contains, in one or more data structures each representing a table, data representing a table, which comprises an array of cells* (Column 2, lines 4 – 7), which provide for ***a plurality of records storing cell data, each of said plurality of records storing cell data storing a subset of the cells of said spreadsheet file.***

20. ***Regarding independent claim 12***, the claim incorporates substantially similar subject matter as claim 1, and is rejected along the same rationale.
21. ***Regarding dependent claim 13***, the claim incorporates substantially similar subject matter as claim 2, and is rejected along the same rationale.
22. ***Regarding dependent claim 14***, the claim incorporates substantially similar subject matter as claim 3, and is rejected along the same rationale.
23. ***Regarding dependent claim 15***, the claim incorporates substantially similar subject matter as claim 4, and is rejected along the same rationale.
24. ***Regarding dependent claim 16***, the claim incorporates substantially similar subject matter as claim 5, and is rejected along the same rationale.
25. ***Regarding dependent claim 17***, the claim incorporates substantially similar subject matter as claim 6, and is rejected along the same rationale.
26. ***Regarding dependent claim 18***, the claim incorporates substantially similar subject matter as claim 7, and is rejected along the same rationale.
27. ***Regarding dependent claim 19***, the claim incorporates substantially similar subject matter as claim 8, and is rejected along the same rationale.
28. ***Regarding dependent claim 20***, the claim incorporates substantially similar subject matter as claim 9, and is rejected along the same rationale.
29. ***Regarding dependent claim 21***, the claim incorporates substantially similar subject matter as claim 10, and is rejected along the same rationale.
30. ***Regarding dependent claim 22***, the claim incorporates substantially similar subject matter as claim 11, and is rejected along the same rationale.

31. ***Regarding independent claim 23***, the claim incorporates substantially similar subject matter as claim 1, and is rejected along the same rationale.
32. ***Regarding dependent claim 24***, the claim incorporates substantially similar subject matter as claim 2, and is rejected along the same rationale.
33. ***Regarding dependent claim 25***, the claim incorporates substantially similar subject matter as claim 3, and is rejected along the same rationale.
34. ***Regarding dependent claim 26***, the claim incorporates substantially similar subject matter as claim 4, and is rejected along the same rationale.
35. ***Regarding dependent claim 27***, the claim incorporates substantially similar subject matter as claim 5, and is rejected along the same rationale.
36. ***Regarding dependent claim 28***, the claim incorporates substantially similar subject matter as claim 6, and is rejected along the same rationale.
37. ***Regarding dependent claim 29***, the claim incorporates substantially similar subject matter as claim 7, and is rejected along the same rationale.
38. ***Regarding dependent claim 30***, the claim incorporates substantially similar subject matter as claim 8, and is rejected along the same rationale.
39. ***Regarding dependent claim 31***, the claim incorporates substantially similar subject matter as claim 9, and is rejected along the same rationale.
40. ***Regarding dependent claim 32***, the claim incorporates substantially similar subject matter as claim 10, and is rejected along the same rationale.
41. ***Regarding dependent claim 33***, the claim incorporates substantially similar subject matter as claim 11, and is rejected along the same rationale.

42. ***Regarding independent claim 34***, the claim incorporates substantially similar subject matter as claim 1, and is rejected along the same rationale.
43. ***Regarding dependent claim 35***, the claim incorporates substantially similar subject matter as claim 2, and is rejected along the same rationale.
44. ***Regarding dependent claim 36***, the claim incorporates substantially similar subject matter as claim 3, and is rejected along the same rationale.
45. ***Regarding dependent claim 37***, the claim incorporates substantially similar subject matter as claim 4, and is rejected along the same rationale.
46. ***Regarding dependent claim 38***, the claim incorporates substantially similar subject matter as claim 5, and is rejected along the same rationale.
47. ***Regarding dependent claim 39***, the claim incorporates substantially similar subject matter as claim 6, and is rejected along the same rationale.
48. ***Regarding dependent claim 40***, the claim incorporates substantially similar subject matter as claim 7, and is rejected along the same rationale.
49. ***Regarding dependent claim 41***, the claim incorporates substantially similar subject matter as claim 8, and is rejected along the same rationale.
50. ***Regarding dependent claim 42***, the claim incorporates substantially similar subject matter as claim 9, and is rejected along the same rationale.
51. ***Regarding dependent claim 43***, the claim incorporates substantially similar subject matter as claim 10, and is rejected along the same rationale.
52. ***Regarding dependent claim 44***, the claim incorporates substantially similar subject matter as claim 11, and is rejected along the same rationale.

Response to Arguments

53. Applicant's arguments, see p 8, third paragraph, filed 2/28/05, with respect to the rejection(s) of claim(s) 1, 12, 23, and 34 under 35 USC 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of a different interpretation of the previously applied reference.

54. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a way to efficiently index or access the cell data, and access data is stored on a separate record for efficiently indexing or accessing cell data (p9, first paragraph)) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

55. Furthermore, it should be noted that the Office is relying on the broadest reasonable interpretation of the claimed invention in its rejection of the claims under 35 USC 103(a).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan Hillery whose telephone number is (571) 272-4091. The examiner can normally be reached on M - F, 10:30 a.m. - 7:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph H. Feild can be reached on (571) 272-4090. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



JOSEPH FEILD
SUPERVISORY PATENT EXAMINER

NH